

## FY 97 MILESTONES

By WBS

WBS	Title	Level	Milestone No.	Due Date	Description
1.2.3.11.2	Geophysical Data Analysis	4	SPT23KM4	27-Nov-96	The completion of a report describing the results of an analysis of aeromagnetic data to interpret the magnetic basement in the vicinity of Yucca Mountain
1.2.3.11.2	Geophysical Data Analysis	4	SPT23AM4	13-Dec-96	Records Packages for FY96 Work complete
1.2.3.11.2	Geophysical Data Analysis	4	SPT23LM4	20-Dec-96	Compl of Region Seismic Reflect Profile Re-Process
1.2.3.12.2	Lab Scale Preferential Flow Paths and Heat Pipes	4	SPL6A1M4	13-Jan-97	Quarterly reports of data, observations, and derived parameters will be submitted as L4 milestones
1.2.3.12.2	Lab Scale Preferential Flow Paths and Heat Pipes	4	SPL6A3M4	14-Apr-97	Quarterly reports of data, observations, and derived parameters will be submitted as L4 milestones
1.2.3.12.2	Lab Scale Preferential Flow Paths and Heat Pipes	4	SPL6A5M4	23-Jun-97	Letter report will summarize the following types of laboratory work and will be conducted under the LLNL/LBNL Collaboration c Thermohydrologic Evaluation of Yucca Mountain
1.2.3.12.2	Post-Emplacement Site-Scale Thermohydrology	4	SPLE1M4	31-Mar-97	A letter report will be submitted to the M&O SPO as a level 4 milestone that summarizes the body of knowledge relevant to T-processes at Yucca Mountain gained from decades of geotherma research
1.2.3.12.2	Post-Emplacement Site-Scale Thermohydrology	4	SPLE2M4	2-Sep-97	A letter report and accompanying three-dimensional mountain-scale model will be submitted to the M&O SPO as a level 4 milestone and subsequently to PA for incorporation in the TSPA as a key component of the Viability Assessment.
1.2.3.14.1	Prepare and Install Large Block Test	4	SP9040M4	10-Jan-97	Based on outcome of pre-test predictive analyses, provide input to and help prepare the report, "Large Block Test Pre-test Analyses and Predicted Results"
1.2.3.14.2	Characterize Drift Scale Test Area	4	SPT33TM4	30-May-97	Complete Lab Test Hydrological Properties
1.2.3.14.2	Characterize Drift Scale Test Area			30-May-97	Complete Pre-Test IR imaging
1.2.3.14.2	Characterize Drift Scale Test Area	4	SP9512M4	13-Jun-97	Submit Characterization report on air permeability, Lab tests, IR imaging with TDIF
1.2.3.14.2	Conduct Single Heater Test Cooling Phase	4	SP9252M4	18-Jul-97	Third Quarter TDIF on air injection tests in SHT hydrology holes #16 and #18
1.2.3.14.2	Conduct Single Heater Test Cooling Phase	4	SP9291M4	18-Jul-97	Third Quarter TDIF on IR Imaging of SHT area

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1.2.3.14.2	Conduct Single Heater Test Heating Phase	4	SP918M4	13-Dec-96	Forecast Air Injection test results of single heater test report
1.2.3.14.2	Conduct Single Heater Test Heating Phase	4	SP9230M4	17-Jan-97	First Quarter TDIF on IR imaging on SHT area
1.2.3.14.2	Conduct Single Heater Test Heating Phase	4	SP9263M4	17-Jan-97	First Quarter TDIF on air injection test in SHT Hydrology holes #16 and #18
1.2.3.14.2	Conduct Single Heater Test Heating Phase	4	SP9241M4	1-Apr-97	Submit to Robin Datta report on effectiveness of Ground Penetrating Radar method in measuring moisture content in SHT area
1.2.3.14.2	Conduct Single Heater Test Heating Phase	4	SP9237M4	18-Apr-97	Second Quarter TDIF on IR Imaging of SHT area
1.2.3.14.2	Conduct Single Heater Test Heating Phase	4	SP9216M4	23-May-97	Second Quarter TDIF on air injection tests in SHT hydrology holes #16 and #18
1.2.3.14.2	Finalize Drift Scale Test Design, Perform Pretest Analysis	4	SP9318M4	13-Jun-97	Complete Predicted results on Drift Scale Test
1.2.3.14.2	Perform Pre-Test Analysis and Forecast F	4	SP911M4	13-Dec-96	Forecast Thermohydrological Results of the Single Heater Test report
1.2.3.3.1.2.4	Moisture Monitoring in the ESF	4	SP331FM4	14-Mar-97	Consists of a memorandum to the M&O SPO Manager describing the data and results of analyses and interpretations conducted from 01 October 1996 through 31 January 1997.
1.2.3.3.1.2.4	Moisture Monitoring in the ESF	4	SPH35FM4	14-Mar-97	Preparation and submittal to the Central Records Facility and Technical Data Base, as appropriate, of data collected from 01 October 1996 through 31 January 1997
1.2.3.3.1.2.4	Moisture Monitoring in the ESF	4	SP3312GM4	29-Aug-97	Memorandum to the M&O SPO Manager reporting previously unreported data and describing the results of analyses and interpretations conducted by LBNL in support of this activity through July 1997
1.2.3.3.1.2.4	Moisture Monitoring in the ESF	4	SP3312HM4	30-Sep-97	Preparation and submittal to the Central Records Facility and Technical Data Base, as appropriate, of previously unreported data collected through July 1997

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1.2.3.3.1.2.4	Percolation flux across Repository Horizon	4	SPBH35M4	29-Aug-97	Consists of a detailed plan to be prepared jointly by USGS and LBNL, for conducting in-situ field tests within the ESF to estimate the rate and spatial distribution of present-day percolation flux across the potential repository horizon
1.2.3.3.1.2.9	Confirm Unsaturated Zone Hydrologic Flow Models	4	SP33UAM4	30-Aug-97	A Letter report and accompanying three-dimensional TH mountain-scale UZ model will be prepared and delivered for incorporation into the TSPAs.
1.2.3.3.1.2.9	Support Unsaturated Zone Model Expert Elicitation	4	SPT4KM4	2-Jun-97	Preparation of and submittal to the Central Records Facility and the Technical Data base, as appropriate, of any data generated by this activity
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24UAM4	27-Nov-96	Incorporating spatially varying hydrogeologic-parameter distributions such as porosity, permeability and van Genuchten model fitting coefficients into the UZ site-scale model
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24UBM4	31-Jan-97	Completion of calibrations and studies of gas flow at Yucca Mountain and incorporating the results into the UZ site-scale model
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24UCM4	28-Feb-97	Completion of modeling studies of perched water at Yucca Mountain and incorporating the results into the UZ site-scale model
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24B1M4	31-Mar-97	Interim UZ Flow Mdl for PA Abstr/Sens Analyses
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24UDM4	31-Mar-97	Completion of calibration efforts using the UZ Site-Scale Model
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24UEM4	30-Apr-97	Describe the simulation of future climate scenarios using the calibrated UZ site-scale model.
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	4	SP24UFM4	2-Jun-97	Draft UZ Site-Flow Model
1.2.3.3.1.2.9	Unsaturated Zone Synthesis and modeling	3	SP24BM3	16-Jun-97	Site Unsaturated Zone Model Report
1.2.3.3.1.3.3	Confirm SZ Hydrologic Flow Models	4	SP33RM4	31-Oct-96	Outline of Sub-Site-Scale 3-Dimensional Numerical Saturated Zone Flow Model

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1.2.3.3.1.3.3	Confirm SZ Hydrologic Flow Models	4	SP335M4	28-Feb-97	Flow Processes in the Sub-Site-Scale 3-Dimensional Numerical Saturated Zone Flow Model
1.2.3.3.1.3.3	Confirm SZ Hydrologic Flow Models	4	SP33TM4	31-May-97	Progress Report on Sub-Site-Scale 3-Dimensional Numerical Saturated Zone Flow Model
1.2.3.3.1.3.3	Confirm SZ Hydrologic Flow Models	4	SP25UM4	29-Aug-97	Delv Numer Model and Input/output data set